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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,658	01/13/2006	Hans-Helmut Bechtel	DE0300247	9677
24737 7590 05/12/2009 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER				
SUCH, MATTHEW W				
ART UNIT		PAPER NUMBER		
2891				
MAIL DATE		DELIVERY MODE		
05/12/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,658

Applicant(s)

BECHTEL ET AL.

Examiner

MATTHEW W. SUCH

Art Unit

2891

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 5, 7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5, 7 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite "...wherein the metallic structure comprises a strip...spaced at...". However, this renders the claim indefinite because it is unclear what the strip is spaced relative to. The claim fails to identify which element the strip is spaced from.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Hosokawa (EP '035; supplied with Office Action dated 7 October 2008).

a. Regarding claim 1, Hosokawa teaches a substrate having a surface (Elements 1 and 6 in combination as shown in Fig. 1 and described on Page 9, Lines 50-52 as well as Page 20, Lines 39-50; both Elements 1 and 6 are glass as described on Page 8, Lines 2, 9 and 37 making a single substrate and described on Page 9, Lines 50-52 as well as Page 20, Lines 39-50). A metallic structure (Element 5, such as Al, is incorporated into the substrate (the Al is in the substrate as described on Page 9, Lines 50-52 and Page 20, Lines 41-44). The examiner notes that the phrase "a metallic structure" only requires one piece (one of Elements 5 or one Al film in one groove Page 9, Lines 50-52 and Page 20, Lines 41-44). A layer assembly comprising a first electrode of ITO (Element 2 and associated text, especially Page 20, Lines 45-47, for example), an electroluminescent layer (Element 3 and associated text, especially Page 5, Lines 49-50), and a second electrode (Element 4 and associated text, especially Page 5, Lines 50-51) is formed on the surface of the substrate. The metallic structure is in electrical contact with the first electrode (see, for example, Page 5, Line 56 and Page 20, Lines 47-49). A layer resistance of the metallic structure is lower than a layer resistance of the first electrode (Page 5, Lines 52; Page 6, Lines 15-17 and 45-58; Page 20, Lines 49-50, for example).

Furthermore, the language of "wherein light travels through the first electrode and the substrate to an observer" and "that obstructs the light from the observer", does not distinguish the claim from the structural limitations of the prior art. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir.

1997). See MPEP § 2112.01. Nevertheless, the device of Hosokawa functions in this manner.

A width of the metallic structure is 10 microns (Page 20, Line 42) and a width of the substrate is 100 millimeters (Page 20, Line 41). Therefore, the width of the metallic structure is less than 10% of the width of the substrate since 10 microns is only 0.01% of 100 millimeters.

b. Regarding claim 3, the thickness of the metallic structure is 0.5 microns (see Page 20, Line 44) and the thickness of the first electrode is 100 nanometers (see Page 20, Lines 45-46). Since 0.5 microns is greater than 100 nanometers, the thickness of the metallic structure is greater than the thickness of the first electrode.

c. Regarding claim 5, the metallic structure of Hosokawa comprises strips, for example (Page 20, Lines 42-43).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. In so far as definite, claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosokawa (EP '035; supplied with Office Action dated 7 October 2008).

Hosokawa teaches that the metallic structure comprises a strip (Page 20, Lines 42-43) and teaches that the width of the strip can be from 2-1000 microns (Page 7, Lines 44-45) but does not explicitly state an example of a width of 200 microns. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a width of 200 microns for the width of the strip in order to reduce line resistance since Hosokawa teaches that wider lines have an advantage of lower line resistance (Page 7, Line 46, for example). A mere change in size of a component is recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955) and the Applicant has not disclosed any unexpected benefit or advantage of using a 200 micron width for the strip over any other arbitrary width.

Regarding the recitations of "spaced at 20 nm" in claim 6 and "spaced at 25 nm" in claim 7, it is unknown what the strip is spaced from. As such, any object can be selected, such as another metallic structure in a pixel formed all of the way across a 14 inch display (see Page 17, Line 25, for example) substrate from the claimed strip.

Response to Arguments

7. Applicant's arguments filed 30 January 2009 have been fully considered but they are not persuasive.

d. The Applicant argues that claims 1, 3 and 5-6 are rejected under 35 U.S.C. 103(a) as unpatentable over the reference of Hosokawa (see Remarks Page 6, Lines 4-8). This is

incorrect. The Office action dated 7 October 2008 rejected claims 1, 3 and 5-6 under 35 U.S.C. 102(b).

e. The Applicant argues that the claims are patentable over the reference of Hosokawa. The Applicant argues that that Hosokawa disclose 10 micron wide photoresist apertures having a pitch of 100 microns resulting in 10% of the width of the substrate instead of less than 10% as require by the claim (see Remarks Page 6, Lines 9-20). This is not persuasive for at least the following reasons.

As noted in the Office action, the phrase "a metallic structure" merely requires one wire incorporated into the substrate. Claim 1 does not further limit what the metallic structure is except for the phrase "wherein a width of the metallic structure that obstructs the light from the observer is less than 10% of the width of the substrate". The Applicant argues that the "metallic structure" is read into Hosokawa as all of the wires incorporated into the substrate. However, this is not required by the claim as currently written since the claim only requires "a metallic structure", which reads on a single wire. Therefore, as pointed out by the Office action, the single wire has a width of 10 microns and the substrate width is 100 mm which yields a width of the single wire blocking light is only 0.01%, which is less than 10%.

Furthermore, even if one were to take the Applicants interpretation of the phrase "the metallic structure" as including all of the wires incorporated into the substrate, the reference of Hosokawa still meets limitation as follows. As noted by Hosokawa on Page 20, Lines 41-43, the plate is 100 mm (100,000 microns) wide with 960 wires

incorporated therein that are each 10 microns wide with a pitch of 100 microns. This yields a total width of all of the wires as 9600 microns (10×960), which is 9.6% of the width of the substrate of 100,000 microns. This is less than 10% and meets the limitations even under the Applicant's incorrect interpretation.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW W. SUCH whose telephone number is (571)272-8895. The examiner can normally be reached on Monday - Friday 9AM-5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kiesha Rose can be reached on (571) 272-1844. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew W. Such/
Examiner, Art Unit 2891

MWS
5/1/09

/Douglas M Menz/
Primary Examiner, Art Unit 2891
5/8/09